

A gynandromorph of *Lemyra imparilis* (Butler) (Arctiidae, Lepidoptera) from Japan¹

Takeo YAMAUCHI

Biosystematics Laboratory, Graduate School of Social and Cultural Studies, Kyushu University, Ropponmatsu, Fukuoka, 810-8560 Japan; e-mail: takeorcb@mbox.nc.kyushu-u.ac.jp

Abstract A gynandromorphic individual of *Lemyra imparilis* (Butler, 1877) is described from Ehime Pref. of Japan. This is the second record for this species. This specimen has entirely male external features in the left half, but male and female features are mixed on the right forewing and thorax. The genitalia appear to be completely male.

Key words Gynandromorph, Arctiidae, *Lemyra imparilis*, Japan.

Lemyra imparilis (Butler, 1877) belonging to the Arctiinae (Lepidoptera: Arctiidae) is distributed in Japan, Taiwan, and China. This species, recently transferred from the genus *Spilosoma* Curtis, 1825 to the genus *Lemyra* Walker, 1856 (Thomas, 1990), is not so rare in Japan, and is sexually dimorphic as follows: male (Figs 3–4)—dark brown in color, antenna bipectinate, forewing length about 18–21 mm; female (Figs 5–6)—pale cream in color, antenna bidentate, forewing length about 25–27 mm.

In this paper, a gynandromorph of *L. imparilis* is described, which is the second record for this species. This specimen was captured in Tan-noue, Tōyo City, Ehime Pref., Japan on 14. VIII. 1994. This individual flew to a 500 W mercury lamp, set in a small town surrounded by mountains and rice paddies (*ca* 100 m alt.). The examined specimen is deposited in my private collection.

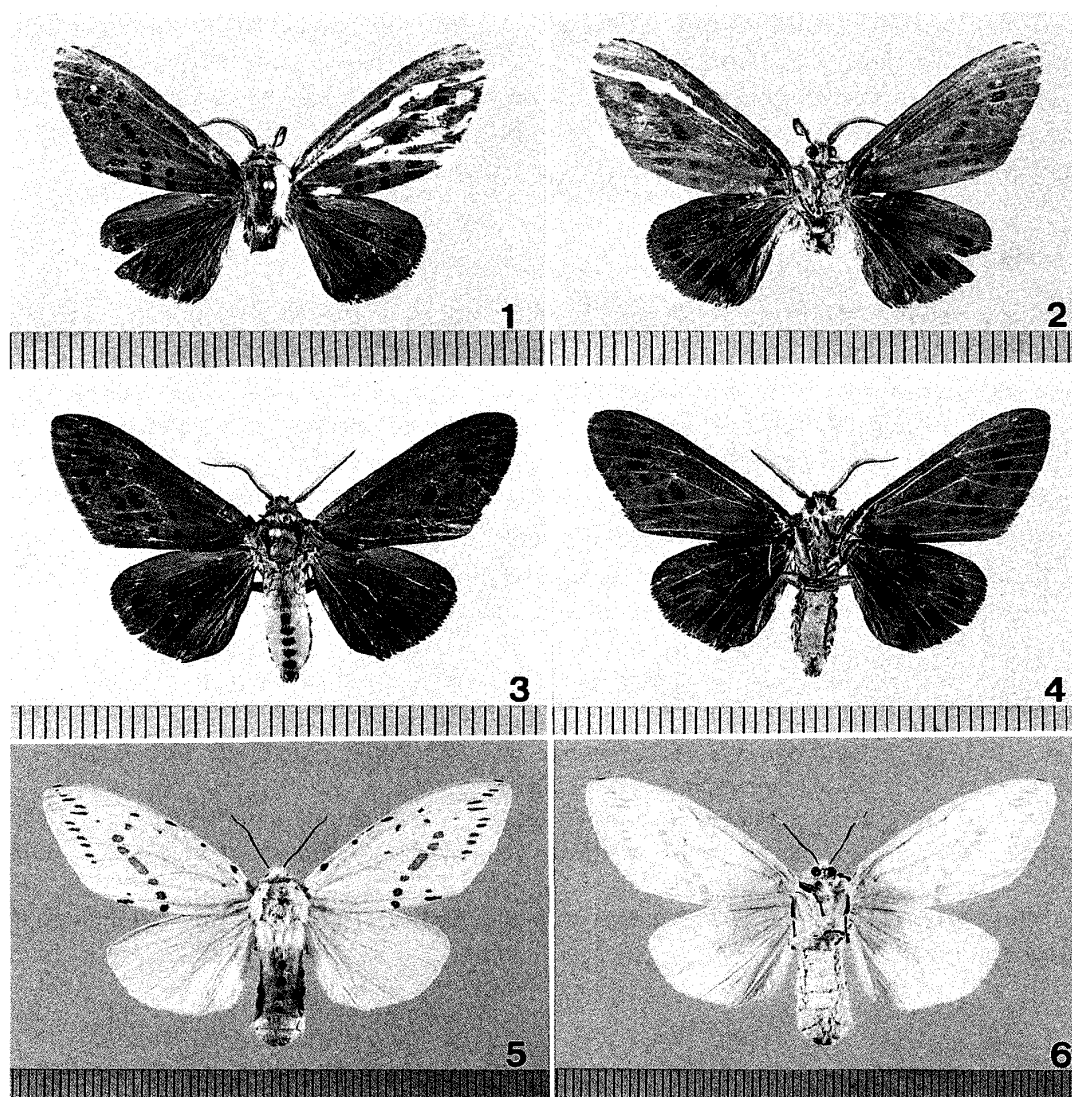
Gynandromorphic specimens of this species are very noticeable because of its sexual dimorphism, but there has been only one record from Hokkaido, Japan (Inoue, 1963).

Morphology of gynandromorphic specimen of *Lemyra imparilis* (Figs 1–2)

This specimen was damaged, with the right midleg already lost when collected.

The ground color of the upper- and undersides of the left wings and right hindwing is dark brown as in normal males. On the upperside, the right forewing shows mosaic patterns with its ground color dark brown mixed with pale cream of females in cells 1A+2A, CuA₂, CuA₁, M₃, M₂, and M₁, discoidal cell, and near the base along the costa. The fringe also has mosaic patterns with its ground color dark brown mixed with pale cream close to pale cream colored cells. On the underside, the ground color of the right forewing is dark brown mixed with pale cream in cell M₁ and discoidal cell. The left forewing is 18.6 mm in length, and the right 19.3 mm, and thus there is a small difference in forewing length. But the difference is probably not due to gynandromorphism, since the lengths are within the range of normal variation for males. Hairs and scales of the left side of the head are dark brown

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Figs 1-6. Gynandromorph and normal specimens of *Lemyra imparilis* (Butler, 1877). 1. Gynandromorph, upperside. 2. *Ditto*, underside. 3. Normal male, upperside. 4. *Ditto*, underside. 5. Normal female, upperside. 6. *Ditto*, underside.

like normal males, while those of the right are pale dark brown, neither of males, nor of females. Both antennae are bipectinate as in normal males. Hairs and scales on the thorax are brown in ground color, except for the right tegula which has a spot of pale cream hairs mixed with slightly dark brown hairs. But the spot is smaller than that of typical females. The external features of the abdomen are those of males.

The genitalia of this specimen were compared with those of a normal male of *L. imparilis* collected from the same locality and with the illustration of Kôda (1988). This gynandromorphic specimen had normal male genitalia.

The first gynandromorphic specimen in this species (Inoue, 1963) is similar to this specimen in regard to the following characters. The first specimen shows mosaic patterns with its ground color dark brown mixed with pale cream on the upperside of the right forewing, and the ground color of the upper- and undersides of the left wings and right hindwing is dark brown. The genitalia have normal male structure with complete and symmetrical valvae, normal uncus, and complete other clasping appendages on external view.

But the differences are the following. The left antenna with longer pectinations is identical with male and the right with short pectinations shows the female characters. To my regret, both antennae of this specimen were broken and the apical portions of them were missing. Hairs of frons are whitish as in females. The abdomen is intermediate between both sexes. The right hindwing is nearly of male but larger than the normal specimens.

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摘 要

クワゴマダラヒトリ雌雄型個体の日本からの記録 (山内健生)

クワゴマダラヒトリにおける2例目の雌雄型個体を記録した。採集データは以下の通りである: 1 ex., 14. VIII. 1994, 愛媛県東予市旦之上 (標高約 100 m), 山内健生採集。本種は顕著な性的二型を示すため、その雌雄型も非常によく目をひく。しかし、今までに知られている本種の雌雄型の記録は井上 (1963) による北海道からの記録のみである。

本雌雄型個体は体正中面を境に、左側は完全に雄の特徴を示しているが、頭部右側は薄い焦げ茶色であり、通常の雌雄どちらのものとも異なる色である。右前翅は表裏面とも、焦げ茶色の地色に部分的に淡いクリーム色を交えるモザイク状である。右肩板は淡いクリーム色の毛に混じって、点状に焦げ茶色の毛を有する。しかし、この点状の模様は通常の雌のそれよりも小さい。左側の前翅長は 18.6 mm, 一方右側の前翅長は 19.3 mm である。左右の前翅長間にわずかな差があるが、これらは、どちらも通常雄のその変異幅に含まれるため、おそらく雌雄型が原因ではないと思われる。左右両方の触角は通常の雄と同様、両櫛歯状である。腹部の特徴は外見上、通常の雄と差がなく、また外部生殖器も完全な雄のものであった。

本個体は斑紋、胸部の模様などは、井上 (1963) により最初に記録された本種の雌雄型個体とよく似ているが、触角、顔面の色、腹部の色などに違いが認められる。

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